

PART TWO: QUANTITATIVE APTITUDE TEST (50%)

INSTRUCTION: This part of the test consists of 25 multiple choice questions. Choose the best answer and write the letter of your choice in CAPITAL against the number on the separate answer sheet provided. You can use the space provided at the end of the questions on each page for a rough work.

1. If $a^{-1/2} = x$ where $a > 0$ and $x > 0$, Which of the following equations express a in terms of x
A) $a = 1/\sqrt{x}$ B) $a = 1/x^2$ C) $a = \sqrt{x}$ D) $a = -x^2$ E) None of these
2. If Aster walks at 14 km/hr instead of 10 km/hr, she would have walked 20 km more. The actual distance she travelled is: A) 50 km B) 56 km C) 70 km D) 80 km E) 60 km
3. The width of a rectangle is $2/3$ times its length. If the length is calculated to be 9, what is the perimeter of the rectangle? A) 36 B) 30 C) 24 D) 27 E) 18
4. Adam has bought a certain number of apples. Jalene has bought 5 times the fruit that Adam has bought. If Jalene has bought two and a half dozen apples how many apples does Adam have?
A) 12 B) 8 C) 6 D) 24 E) 30
5. The sum of ages of 5 children born at the intervals of 3 years each is 50 years what is the age of the youngest child? A) 4 years B) 8 years C) 10 years D) 3 years E) None of these
6. If $x = 3^{-1}$ then $\left(\frac{1}{x} + x\right)\frac{1}{x} =$ A) 3 B) 10 C) 8 D) 9 E) None of these
7. If Aster incurs 5% loss by selling a book for Birr 950, then in order to earn 5% profit she should sell the book at Birr A) 950 B) 1050 C) 1000 D) 1100 E) None of these

For Rough Work

8. In what ratio must a grocer mix two varieties of coffee costing Birr 150 and Birr 200 per kg respectively so as to get a mixture worth Birr 165 per kg?

- A) 3 : 7 B) 5 : 7 C) 7 : 5 D) 7 : 3 E) None of these

9. If one-third of one-fourth of a number is 15, then three-tenth of that number is:

- A) 35 B) 36 C) 45 D) 54 E) none of these

10. If Aster incurs 5% loss by selling a book for Birr 950, then in order to earn 5% profit she should sell the book at Birr

- A) 950 B) 1050 C) 1000 D) 1100 E) None of these

11. A two-digit number is such that the product of the digits is 6. When 9 is added to the number, the digits are reversed. The number is:

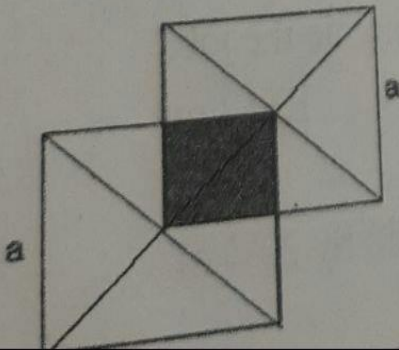
- A) 16 B) 32 C) 23 D) 61 E) none of these

12. A positive integer x is 50 percent of 50 percent of a positive integer y , and x percent of y equals 100. what is the value of y ?

- A) 50 B) 200 C) 100 D) 1000 E) none of these

13. The shaded area when two squares with side 'a' intersect as shown in the figure below is

- A) $\frac{1}{4} a^2$ B) $\frac{1}{8} a^2$ C) $\frac{4}{5} a^2$ D) $\frac{1}{2} a^2$ E) None of these



For Rough Work

14. A picture is copied onto a sheet of paper 8.5 inches by 10 inches. A 1.5 inch margin is left around. What area in square inches does the picture cover?
A) 38.5 B) 65 C) 59.5 D) 49 E) None of these
15. Jemal deposited Birr 10,000 in a saving that pays 4 percent interest per annum compounded quarterly. If there are no transactions in the account, what would be the amount of the account after 6 months?
A) Birr 10,100 B) Birr 10,201 C) Birr 10,200 D) Birr 10,101
16. Ayele has three more than twice as many candies as does Aster, and half as many as Nardos. If Aster has 'x' number of candies then in terms of 'x', how many candies do they have?
A) $3x + 9$ B) $5x + 3$ C) $7x + 9$ D) 9
17. When two dice are thrown simultaneously, what is the probability that the sum of the numbers that turn up is greater than 10?
A) $1/12$ B) $2/3$ C) $1/6$ D) $1/4$
18. Feyssa can complete a job in 12 hours, and Aster can complete the same job in 8 hours. If Feyssa starts the job at 9 am, and stops working at 3 pm. If Aster starts working at 4 pm, at what time is the job finished?
A) 6 pm B) 7 pm C) 8 pm D) 9 pm
19. A department store reduces the price of a Birr 40 shirt by 15%, but later increases the sale price. What is the final price of the shirt?
A) Birr 44.40 B) Birr 42 C) Birr 40 D) Birr 40.8

For Rough Work

14. A picture is copied onto a sheet of paper 8.5 inches by 10 inches. A 1.5 inch margin is left all around. What area in square inches does the picture cover?

- A) 38.5 B) 65 C) 59.5 D) 49 E) None of these

15. Jemal deposited Birr 10,000 in a saving that pays 4 percent interest per annum compounded quarterly. If there are no transactions in the account, what would be the amount of money in Jemal's account after 6 months?

- A) Birr 10,100 B) Birr 10, 201 C) Birr 10, 200 D) Birr 10,101 E) Birr 10,400

16. Ayele has three more than twice as many candies as does Aster, and half as many candies as does Nardos. If Aster has 'x' number of candies then in terms of 'x', how many candies in total do three of them have? A) $3x + 9$ B) $5x + 3$ C) $7x + 9$ D) 9 E) None of these

17. When two dice are thrown simultaneously, what is the probability that the sum of the two numbers turn up is greater than 10? A) $1/12$ B) $2/3$ C) $1/6$ D) $8/9$ E) None of these

18. Feyssa can complete a job in 12 hours, and Aster can complete the same job in 8 hours. Feyssa starts the job at 9 am, and stops working at 3pm. If Aster starts working at 4 pm to complete the job at what time is the job finished? A) 6 pm B) 7 pm C) 8 D) 10 pm E) 12 pm

19. A department store reduces the price of a Birr 40 shirt by 15%, but later raises it again by 20% of the sale price. What is the final price of the shirt?

- A) Birr 44.40 B) Birr42 C) Birr 40 D) Birr 40.80 E) None of th

=====For RoughWork=====

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